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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/756,448

01/12/2004

Richard W. Adkisson

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11/16/2006

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

SCHNEIDER, JOSHUA D

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/756,448

Applicant(s)

ADKISSON ET AL.

Examiner

Joshua D. Schneider

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 5-10, 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11-14, and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

*Election/Restrictions*

1. Applicant's election with traverse of the restriction requirement in the reply filed on 8/16/2006 is acknowledged. The traversal is on the ground(s) that there are now amended linking claims present. This is not found persuasive because it does not in any way respond to the restriction given. Applicant has properly noted the presence of linking claims now present as dependent claims dependent on claim 1. However, these claims were not present when the restriction was made, and so any argument that depends on these claims cannot be persuasive, because it does not address the actual restriction given.

2. Examiners cannot predict future amendments that may be made and cannot be expected to make proper actions to them. Responses that do not address the current action are non-responsive and therefore cannot be persuasive.

The requirement is still deemed proper and is therefore made FINAL.

3. Claims 5-10, 15, and 16 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Groups II, III, and IV, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 8/16/2006.

4. It is further noted that the claims would be properly restricted. Claim 17-20 link(s) inventions of Group I and Group II, III, and IV. The restriction requirement between the linked inventions is **subject to** the nonallowance of the linking claim(s), claims 17-20. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions **shall** be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability

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in accordance with 37 CFR 1.104 **Claims that require all the limitations of an allowable linking claim** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, the allowable linking claim, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### ***Specification***

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "substantially" in claims 18 and 19 is a relative term which renders the claim indefinite. The term "substantially" is not defined by the claim, the specification does not

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provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear how data can be delivered substantially directly, as it seems the data must be delivered directly or indirectly. It is also unclear what "substantially no time gaps" encompasses in scope, as data is generally delivered with or without delay causing elements in between sending and receiving elements.

9. With regards to claim 18, it is unclear how data can be held and still be delivered as soon as possible. It is inherent to the fact that the data is being held that it is not being delivered as soon as possible.

10. All further rejections and objections are made in light of the specification as best understood in light of the previous objections and rejections.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-4 and 17 are rejected under 35 U.S.C. 102(a) as being anticipated by U.S.

Patent Application Publication 2003/0159008 to Sprangle et al.

13. With regards to claim 1, Sprangle teaches selecting a system performance parameter to be optimized (paragraphs 16 and 22), receiving at the data input a sequence of discrete data words (paragraphs 4-6), determining an optimum mode of delivery of the data words to the data output

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so as to optimize the selected performance parameter (paragraphs 16 and 22), and delivering the data words from the data input to the data output in the determined optimum mode (paragraphs 20-22).

14. With regards to claim 2, Sprangle teaches determining the optimum mode of delivery includes determining at least one of an optimum time and sequence of delivery of the data words (paragraphs 16 and 22).

15. With regards to claim 3, Sprangle teaches reordering the data words into a desired sequence before delivering the data words from the data input to the data output (paragraphs 20-22).

16. With regards to claim 4, Sprangle teaches selecting a system performance parameter to be optimized (paragraphs 16 and 22), receiving at the data input a sequence of discrete data words (paragraphs 4-6), determining an optimum sequence and time of the delivery of the data words to the data output so as to optimize the selected performance parameter (paragraphs 16 and 22), and delivering the data words from the data input to the data output in the determined optimum sequence and time (paragraphs 20-22).

17. With regards to claim 17, Sprangle teaches receiving at the data input a sequence of discrete data words (paragraphs 20-22), and delivering each data word to the data output without regard to sequence and as soon as possible after the data word is received at the data input (paragraphs 21-23), whereby latency is minimized (paragraph 23).

18. Claims 11-14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2004/0090924 to Giaimo et al.

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19. With regards to claim 11, Giaimo teaches selecting a system performance parameter to be optimized for each channel (paragraph 8), receiving at the data input of each channel a sequence of discrete data words (paragraphs 20-25), determining an optimum mode of delivery of the data words to the data output so as to optimize the selected performance parameter for the associated channel (paragraph 8), and delivering the data words from the data input to the data output in the determined optimum mode for each channel (paragraphs 20-25).

20. With regards to claim 12, Giaimo teaches the mode of delivery is different for at least two of the plurality of data channels (paragraphs 25-26).

21. With regards to claim 13, Giaimo teaches selecting a system performance parameter to be optimized for each source (paragraph 8), receiving at the data input a sequence of discrete data words from each source (paragraphs 20-25), determining an optimum mode of delivery of the data words to the data output so as to optimize the selected performance parameter for the associated source (paragraph 8), and delivering the data words from the data input to the data output in the determined optimum mode for each source (paragraphs 20-25).

22. With regards to claim 14, Giaimo teaches the mode of delivery is different for at least two of the plurality of data sources (paragraphs 25-26).

***Claim Rejections - 35 USC § 103***

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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24. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0159008 to Sprangle et al. in further view of U.S. Patent 6,912,598 to Bedarida et al.

25. With regards to claim 18, Sprangle teaches receiving at the data input a sequence of discrete data word (paragraphs 4-6). Sprangle fails to teach, but Bedarida teaches holding at least one of the data words first received at the data input in storage until additional data words comprising the data packet are received at the data input (column 1, lines 18-43), delivering the data words from storage to the data output as the additional data words comprising the data packet are received at the data input with minimal time gaps between said data words (column 1, lines 38-43), and delivering the additional data words substantially directly from the data input to the data output as soon as possible after the additional data words are received at the data input, whereby bandwidth is maximized (column 1, lines 38-43). It would have been obvious to one of ordinary skill in the art to combine the burst data transfers of Bedarida with the memory controller of Sprangle in order to maximize bandwidth by decreasing access times.

26. With regards to claim 19, Sprangle teaches receiving at the data input a sequence of discrete data word (paragraphs 4-6). Sprangle fails to teach, but Bedarida teaches holding each of the data words received in storage until all data words comprising the data packet have been received (column 1, lines 18-43), and delivering the data words from storage to the data output in the preselected sequence and with substantially no time gaps between the data words, whereby safety is maximized (column 1, lines 38-43). It would have been obvious to one of ordinary skill in the art to combine the burst data transfers of Bedarida with the memory controller of Sprangle in order to maximize bandwidth by decreasing access times.



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27. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2003/0159008 to Sprangle et al. in further view of U.S. Patent Application Publication 2002/0018395 to McLaury.

28. With regards to claim 20, Sprangle teaches a data input for receiving a sequence of discrete data words (paragraphs 4-6), a data output to which data are delivered (paragraphs 20-22). Sprangle fails to teach, but McLaury teaches and at least one data storage element intermediate the data input and data output for storing individual data words for a determined time before delivery to the data output (Fig. 1, element 242, master input register), and at least one path for selectably delivering data to the data output by bypassing said data storage element (Fig. 1, element 242, bypass to output register). It would have been obvious to one of ordinary skill in the art to combine the memory bypass of McLaury with the memory controller of Sprangle in order to minimize delivery latency.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Schneider whose telephone number is (571) 272-4158. The examiner can normally be reached on M-F, 8-4:30.

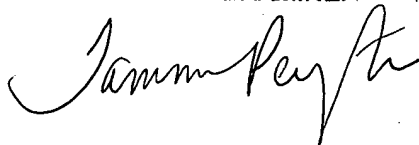
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JDS

**TAMARA PEYTON**  
**PRIMARY EXAMINER**

A handwritten signature in cursive script, appearing to read "Tamara Peyton", is written over the printed name and title.